

SAND MINING AND COASTAL ZONE DEGRADATION IN VADAMARADCHI EAST, JAFFNA, SRI LANKA- POST WAR DEVELOPMENT PERSPECTIVE.

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Post war development activities have been taking place in many sectors in the Jaffna. Construction of houses, roads, schools, government departments and other buildings uses are rapidly changing after war. One of the important building materials for construction is sand. Recently due to post-war development and tsunami reconstruction work is hugely excavated in the coastal zone of Sri Lanka. According to coastal conservation 1981, section 57 coastal illegal sand mining is considered as a serious illegal activity. illegal as well as legal sand mining activities have been taking place without any sustainable environmental conservation plan. The Vadamaradchi East region naturally comprises bars and dunes. These natural resources have been deteriorating rapidly in the coastal zone of Vadamaradchi East.

The objectives of this paper is i) to identify the sand mining locations, and assess its extent and quantity, ii) to study the associated coastal environmental problems in the study area. Primary data were obtained from direct observation and interviews had with sand mining workers and residents those who closely living in those areas (80 samples were collected). Secondary data were collected from various sources, such as office of the Divisional Secretaries, District Secretariat and Department of Geological survey and Mines Bureau, Jaffna.

There are seven major sand dunes in Vadamaradchi East. The estimated total area of sand deposits is about 27.9 Km² and its quantity is about 523282 meter cube (m³) Out of these seven sand dunes four were removed in Manalkadu and Kudaththanai G.N. divisions during post war reconstruction work. Total extent of these removed quantities of sand is 1176000 m³. These sand mining activities are continuously as well as rapidly occurring in Manatkadu (J/418) Kudaththanai (J/419), Kudaththanai Karaiyoor (J/420), Potpathy (J/421) and Aradipattu (J/422) G.N. divisions. It is observed in some places in the study area sand were removed below the sea level and dunes were formed by human adjacent to sea (The Bay of Bengal). seasonally salt water stagnated in these dunes. Serious environmental degradations were observed in these areas. In fact morphological changes of seashore, coastal erosion, salt water intrusion and increasing salinity, degradation of vegetation and vulnerable to sea intrusion caused by climate change and rising sea levels are the some of serious environmental issues.

Keywords: Sand mining, Environment, Degradation, Coastal zone, Sand dune

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